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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/161,283 09/28/98 MAEKAWA

T PMS255979

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IM22/1004

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CHICAGO IL 60603-3406

EXAMINER

KRUER, K

ART UNIT	PAPER NUMBER
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1773

DATE MAILED:

10/04/01

15

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/161,283

Applicant(s)

MAEKAWA

Examiner

Kevin Kruer

Art Unit

1773



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jun 21, 2001
- 2a) ☐ This action is FINAL.
- 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4, 5, and 8-16 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, and 8-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____

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DETAILED ACTION

The finality of paper #5 has been withdrawn, and all outstanding prior art rejections have been overcome by amendment and/or argument.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 recites "a laminated extruded sheet . . . produced by laminating a resin layer (B) on both surfaces of a resin layer(A) . . . the resin layer (A) comprising a methyl methacrylate resin, and the resin layer (B) being made by . . . dispersing . . . 1 to 50 parts by weight of insoluble methyl methacrylate resin particles . . . based on 100 parts by weight of a base resin comprising a methyl methacrylate resin." Claim 2 depends on claim 1 and recites that "the methyl methacrylate resin is a resin containing . . ." It is unclear whether "the methyl methacrylate resin" refers to the methyl methacrylate resin of layer (A), the base resin comprising a methyl methacrylate, or both layers. Clarification is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 2, 5, 8, and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Minghetti et al (US,5,415,931). Minghetti teaches a molded composition comprising 80-95wt% by weight methyl methacrylate and about 5-25wt% or particulate polymethyl methacrylate (claim 1). Said particles have a particle size of about 0.1 to 2.0mm (claim 1). The examiner takes the position that the article taught in Minghetti reads on the claimed invention when all three claimed layers comprise the same composition.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minghetti et al (US 5,415,931), as applied to claims 1, 2, 5, 8, and 16 above, and further in view of Hatakeyama (US 5,804,287). Minghetti is relied upon as above, but does not teach that the composition may comprise a rubber containing polymer. However, Hatakeyama teaches that the addition of such a polymer to a polyacrylic composition has the effect of imparting excellent impact resistance and elongation to the resin composition. Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to add rubber-containing polymer to the base layer taught in Hatakeyama in order to improve the laminate's impact resistance and elongation.

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7. Claims 1, 2, 5, and 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakeyama et al. (US 5,804,287) in view of Minghetti et al. (US 5,242,968). Hatakeyama discloses an acrylic-laminated injection molded article which is produced by adhesively laminating a resin layer with a specific acrylic film (col 1, lines 5-10). The acrylic film (equivalent to layer B of the claimed invention) is obtained by using a rubber-containing acrylic polymer and a methyl methacrylate resin which has 0-50wt percent of at least one other vinyl monomer which is copolymerizable therewith. The rubber-containing polymer is a graft copolymer with a multilayer structure and has an elastic copolymer with 50wt% or more of a methacrylic acid ester grafter thereon (col 2, lines 10-26 and 38-67 and col 3, lines 1-48). The acrylic film may contain additives such as stabilizers, lubricants, processing aids, plasticizer, impact resistant aids, filler, coloring agents and UV absorbers (col 4, lines 48-54). The resin layer (equivalent to layer A of the claimed invention) serves as the base material and may be an acrylic resin. The acrylic film may be heated and shaped by vacuum molding and subsequently melt-integrated by extrusion molding (col 6, lines 13-44).

Hatakeyama does not teach that the acrylic film should comprise methyl methacrylate resin particles. However, Minghetti teaches an acrylic composition comprising 10-20wt% acrylic particles (abstract). The particles and the matrix resin both preferably comprise PMMA. The resulting sheet has a rough surface with a glossy appearance (col 3, lines 20-22). The examiner takes the position that it would have been obvious to one of ordinary skill in the art to add PMMA particles to the acrylic film taught in Hatakeyama in order to roughen the surface of the finished product-thus increasing the surface friction of the finished product.

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Hatakeyama also does not teach that the acrylic sheet should be applied to either side of the base sheet. However, the examiner takes the position that it would have been obvious to one having ordinary skill in the art to laminate acrylic films on both sides of the resin layer given the expectation of equivalent results.


With respect to claims 9-11, Hatakeyama does not teach base layer should comprise rubber-containing polymer. However, Hatakeyama teaches that the addition of such a polymer to a polyacrylic composition has the effect of imparting excellent impact resistance and elongation to the resin composition. Therefore, the examiner takes the position that it would have been obvious to one of ordinary skill in the art to add rubber-containing polymer to the base layer taught in Hatakeyama in order to improve the laminate's impact resistance and elongation.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is (703) 305-0025. The examiner can normally be reached on Monday-Friday from 7:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver, can be reached on (703) 308-1261. The fax phone number for the organization where this application or proceeding is assigned is (703)305-5436.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.


Kevin R. Kruer
Patent Examiner


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